

CLAIMS

1. A honeycomb structural body comprising a plurality of cells formed by providing partition walls composed mainly of cordierite, which has the chemical composition SiO_2 : 45-55 wt%, Al_2O_3 : 33-42 wt%, MgO : 12-18 wt%, in a honeycomb fashion,

the honeycomb structural body being characterized in that said cell density is at least 600 cells/in² and the pore volume of said partition walls is at least 30%.

2. A honeycomb structural body according to claim 1, characterized in that the pore volume of said partition walls is 35-80%.

3. A honeycomb structural body according to claim 1, characterized in that the thickness of said partition walls is no greater than 80 μm .

4. A honeycomb structural body according to claim 1, characterized in that the average roughness R_z of the surface of said partition walls is 1-5 μm .

5. A honeycomb structural body according to claim 1, characterized in that the mean size of the fine pores formed inside said partition walls is 1-10 μm .

6. A honeycomb structural body according to claim 1, characterized in that said honeycomb structural body is a catalyst carrier having a catalyst loaded on the surface of said partition walls.